

TIRE BARGAINS

FISK, GOODRICH, FIRESTONE

All new, first grade, fresh stock, fully guaranteed.

30x3 Non-Skid \$11.00

30x3 1/2 Non-Skid \$13.95

Extra special prices on all plain tread casings.

Drop in and look us over.

"The House of the Best for the Least Money"

Mack Tire Company

WALTER W. INGRAM, Mgr.

Distributors for

AUTOMOBILE TIRE COMPANY

Oldest Auto Tire Jobbers in the United States and Largest in the World

PHONE 1731 203 NORTH CENTRAL AVE.

Second Door North of Monroe, Phoenix, Arizona

Round the Corner You Go

—Yenck!

—Yenck-k!!

—Yenck-k-k!

—To the Song of

Loosened Spokes

An unpleasant sound at best—to say nothing of the unnecessary wear on rim, spokes and hub.

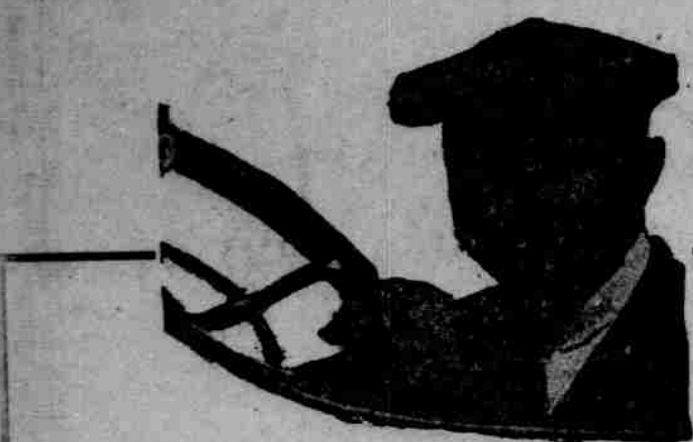
Every turn of the wheels means just that much more worn away. Depreciation increases with every mile.

Stop that noise! Stop that wear and tear on the wheels of your car. Bring it to us, we can tighten the old wheels in a jiffy with the special machines and equipment we have here for that purpose.

Drive in tomorrow and let us fix your wheels.

Allison Spring Co.

332-334 West Adams Street



TIRES

Contented Customers

Passing tires across the counter is only part of tire merchandising as we see it. The vital thing is the establishment of real Customer Friendship, for we want you to buy Oldfield Tires from us every time you need such equipment.

To cultivate—and keep—contented customers is therefore the chief concern of this organization.

Let us show you how this plan works out!

ED RUDOLPH

Grand Ave., Glendale
316-48 E. Adams St.,
Phoenix

MISFIRING IS COMMONEST OF MOTOR'S ILLS

One of the commonest ills to which the internal combustion engine is heir is misfiring. Naturally, this complaint varies in malignancy, sometimes afflicting only one cylinder, sometimes more, often being merely temporary, due to some incorrect adjustment, again being seemingly permanent and calling for drastic action.

Obviously misfiring interferes with the satisfactory operation of the engine. It means that one of more cylinders are not firing, so that those remaining in operation are carrying on all the work. In a six-cylinder engine misfiring is not so annoying as in a four; this is obvious also it is harder to detect. In an eight of twelve one of the cylinders may be cut out and the ordinary amateur driver will never detect it. Misfiring is more easily detected at low speeds than at high, because the flow of power when the engine is running slowly tends to become jerky anyway and the jerk caused by a misfiring cylinder makes detection fairly easy.

In a general way the basic causes of misfiring may be divided into three classes: those caused by carburetion failures, those caused by ignition failures and those caused by some derangement of the valve system. Misfiring due to carburetion causes may generally be traced to an improperly proportioned mixture; the fuel may be too weak or it may be too strong. The effect will be the same, misfiring. Under fairly satisfactory conditions of weather if the engine, after being warmed up, begins to misfire it may be assumed that the mixture being fed is either too rich or too lean. That is the first place to begin trying to correct the trouble. Misfires caused by faulty carburetion will not be confined to any one cylinder, jump to another and make its appearance sporadically in all the cylinders. This is obvious because the same carburetor feeds the same mixture to all cylinders.

Two ways of altering the composition of the fuel mixture are available—one by changing the position of the air control on the dash and the other by feeding more or less gas. In either case the relative strength of the fuel is altered. When misfiring begins it is good practice to try increasing the amount of air used. If this is the cause of the trouble the engine will at once take hold again. On the other hand if the fuel mixture was too weak already the misfiring will grow worse immediately if the sign to cut down the quantity of air being fed until the engine begins to function properly. The amount of air should always be just as large as the engine will assimilate.

It may be that there is some mechanical trouble interfering to make the fuel mixture bad. Air leaks around the inlet manifold or valves will allow too much air to enter. The float of the carburetor may be leaking or it may be stuck, the needle valve may not be seating properly, there may be water in the fuel, dirt on the needle valve, dirt in the fuel or an obstruction in the fuel line. It frequently happens that an engine may run well enough in low speeds, but begins misfiring as the speed increases. When the carburetor has two different adjustments for the different speeds, the obvious thing to do is to try adjustment of the upper range. In making adjustments of the carburetor the needle should be moved just a fraction of an inch either way and the engine tried after each change. All adjustments should be made while the engine is hot.

Misfiring caused by ignition faults is fairly easy to locate because it usually is in the same cylinder. To test a suspected cylinder for ignition misfiring the spark plug is short circuited with a screw driver or similar instrument. When the plug is shorted, with no difference being noticed in the operation of the engine, that cylinder is the guilty one. It may be that further inspection may show the spark plug at fault; it may be carbonized, the points may be too far apart or may be burned; the insulation may be cracked. At any rate replacement of the plug is the remedy. If the plug is found very oily at the bottom this may be causing the misfiring. The oil may have worked its way past faulty piston rings or there may simply be too much oil in the crank case.

AUTO CLUB SAYS THIEF MUST GO

The auto thief must go. This is one of the slogans of the newly formed Automobile Club of Arizona, which has as its aim service and protection to its members in particular and the motoring public in general. The club is modeled after that of southern California and will have branch offices and representatives in every town of the state.

Theft protection and legal assistance are two of the chief advantages of membership, while the dissemination of travel information and the erection of standard auto-road signs will fill a want which has been long felt by auto tourists in this state.

Experience has taught the auto thief that if he can destroy the license number plate or exchange it for another and obliterate the engine

Pike-O Camp Bed

One-half of the pleasure of a motor trip is a comfortable bed at night.

PIKE-O Camp Beds occupy only a small space on the running board.

PIKE-O has good springs and are very durable.

Come and see our exhibit.

ELECTRIC EQUIPMENT CO.
326-34 E. Washington

number, there remains practically no definite means of identifying his car. Hence the large number of machines which are never returned to their owners, once they have fallen into the hands of the thief.

How to overcome this has been solved in a simple and yet effective manner by the Automobile Club of Arizona, which, it is believed, will make it absolutely impossible to cover up identity. The plan is this: Every

member receives a small aluminum identification tag, appropriately numbered and bearing the club name. This tag is safely concealed somewhere about the car, its whereabouts being known only to the owner. Perhaps the tag is placed in a seam of the cushion or in any small crack which may be found. Perhaps it is wrapped over with tape around the wiring. It is up to the ingenuity of the owner to secrete the tag, and once

placed the auto thief is outwitted the minute he takes possession of such a machine. This is but one item in the long program of service which the association affords its members, and it is this idea of helpful service in many lines that insures the success of the association from the start.

It is a well recognized fact that the Automobile Club of Southern California has been a tremendous factor in the development of road travel and highway development in southern California, and that its activities in this direction have been the means of attracting thousands of tourists from all parts of the world. In the same manner the Automobile Club of Arizona hopes to make auto touring a pleasurable certainty instead of an unpleasant uncertainty, as it has too often been in the past.

The success of the new association is assured by the selection of a strong directorate composed of Sidney J. Ross, R. D. Roper, L. W. Sadler, John D. Twibby, Chas. McArthur and Roy Wayland. Mr. Ross has been named president and general manager, Mr. Roper vice president and Mr. Sadler, secretary. The association has offices located in the chamber of commerce building, Phoenix.

WESTERN AUTO HEADQUARTERS FOR Auto SUPPLIES HEADQUARTERS FOR TIRES



CHAMPION X SPARK PLUG 75¢ 55¢

FLASH LIGHT \$1.50 \$1.15

SPOT LIGHT \$6.00

TAIL LIGHT \$1.25

SIDE MIRROR 95¢

MIRROR \$4.50 330

TIMER FOR FORD CARS \$1.50 95¢

TIRE PUMP \$2.50 185

HORN \$3.50 285

SPEEDOMETER \$16.00 1290

STROM BERG CARBURETOR \$19.00 1695

40¢ 30¢

WESTERN GIANT BUMPERS

Our Prices Range From \$7.60 to \$14.50

Stewart Speedometers FOR FORDS

Hand Horns FOR ALL CARS

Hand horns are preferred by some people on account of their simplicity and reliability. We have several makes, including the Hand Horn and the Handphone, at real money-saving prices. Genuine Handphones \$2.85

SPEEDSTER BODIES

Have you headed the call of the open road yet? Put a speedster body on the Ford of your choice and you will have the most popular body on the market. As illustrated \$97.50 With Top and Windshield \$148.50

MAIL ORDERS

Out-of-town customers, send in your orders by mail. Our efficient mail order department will ship goods same day order is received and our guarantee of satisfaction protects you in every instance.

GET OUR FREE CATALOG

Large Steering Wheels For Fords and Chevrolets

Make your car much easier to steer by installing a large steering wheel. We have several different sizes at from \$2.75 up

There is a reason for the tremendous growth of "Western Auto" to an organization of 21 stores. It lies in our policy by which we aim to give the utmost in quality and service and value with the whole organization behind every sale with a "satisfaction or money back" guarantee that means what it says.

"Western Auto" handles high quality trade-marked accessories and supplies, which, on account of big buying and factory-to-you distribution, can sell to customers at 20 to 40% lower than others, while the quality is maintained at its highest.

Get the habit of visiting "Western Auto" whenever you need auto supplies, tires or camping equipment, for nowhere else can you find the large assortment of supplies, the unexcelled service and the remarkably low prices that characterize our 21 stores throughout the West.

SPECIAL Demountable Wheels \$29.75

Natural Finish. 4 Wheels and 5 Rims Complete

A necessity for every Ford. With set of demountable wheels on your car you are able to laugh at the old ordeal of changing a tire. Your spare is carried already mounted on the extra rim, pumped up and when a change is needed all that is necessary is to unscrew a few nuts with the wrench that is included with the outfit.

Our Special Price \$29.75

Headquarters for CAMPING EQUIPMENT

Have you paid our store a visit yet and inspected the many different camp comforts on display? We have, we believe, the largest assortment in the city and we know our "camp" can't be beat. We supply camping information and road maps free.

FOLDING CAMP STOVES

There is now no need of putting up with makeshift for a camp fire, when one of these folding camp stoves will give you all the utility of the gas range in your home. We carry three sizes, some coming equipped with cooking utensils. Prices run from \$7.35 to \$16.00

AUTO TENTS \$8.85 AND UP

Why not inspect the line of tents carried by Western Auto? We have all types, and we know our values are unsurpassed. You can buy a 7x7 8-oz. white duck tent for \$8.85, while other types in proportion.

Folding Seatable

Have your outdoor holidays in the most desirable and comfortable way. This folding seat is a real money-saver. Regular type \$4.25 With end gates \$4.85

Adjustable Luggage Carrier

This is the kind everybody uses. When placed on the market they showed little interest in the idea of their fitting exactly the needs of the motoring public.

Regular type \$4.25 With end gates \$4.85

WESTERN AUTO SUPPLY COMPANY

141-47 N. Central Ave. Phoenix, Ariz.

OTHER STORES

San Diego, Cal. Sacramento, Cal. Fresno, Cal. Long Beach, Cal. Bakersfield, Cal. Denver, Colo. Pasadena, Cal. Seattle Wash. Kansas City, Mo. S. Francisco, Cal. S. Bernard's, Cal. Dallas, Texas Oakland, Cal. Los Angeles, Cal. St. Paul, Minn. Stockton, Cal. Riverside, Cal.

STORES BEING OPENED IN

San Jose and Other Cities

Save Money on Tires

Isn't it natural to suppose that a house like "Western Auto," buying as it does many carloads of tires at a time, can sell them to you cheaper than the small dealer who buys only a half dozen? And our guarantee on tires is real and tangible, you can bank on it every time.

For the benefit of our customers with their many different tastes, we carry several grades of tires and save you money on all of them. They are all first quality and guaranteed. Visit our tire department and see for yourself the really remarkable values we offer.

OUR CASH PRICES

FIDELITY TIRES 6000-Mile Guarantee				NEBRASKA TIRES 6000-Mile Guarantee			
Size	CASINGS	NS	TUBES	Size	CASINGS	NS	TUBES
30x3	Rib	\$8.95	\$1.65	30x3	Rib	\$9.40	\$1.95
30x3 1/2	NS	11.60	2.25	30x3 1/2	NS	11.60	2.25
32x3	..	13.50	2.75	32x3	..	13.50	2.75
31x4	..	15.25	2.85	31x4	..	15.25	2.85
32x4	..	17.30	2.95	32x4	..	17.30	2.95
33x4	..	18.20	3.05	33x4	..	18.20	3.05
34x4	..	18.65		34x4	..	18.65	

Pharis and India Prices

PHARIS TIRES 7000-10,000-Mile Guarantee				INDIA TIRES 8000-12,000-Mile Guarantee			
Size	FABRIC	CORD	FABRIC	Size	FABRIC	CORD	FABRIC
30x3	\$12.10	..	\$15.15	30x3	\$14.35	\$21.45	\$24.45
30x3 1/2	18.20	29.65	23.75	30x3 1/2	20.15	26.00	26.00
32x3	20.15	29.65	23.75	32x3	24.20	37.65	28.45
31x4	25.30	38.80	29.75	31x4	25.30	38.80	29.75
32x4	25.95	39.80	30.20	32x4	..	..	..
33x4	..	..	..	33x4	..	..	..
34x4	..	..	..	34x4	..	..	..
35x4	..	..	..	35x4	..	..	..
36x4	..	..	..	36x4	..	..	..
37x5	..	..	..	37x5	..	..	..
38x5	..	..	..	38x5	..	..	..
39x5	..	..	..	39x5	..	..	..
40x5	..	..	..	40x5	..	..	..